Project Design Phase II

Technology Stack (Architecture & Stack)

Date	04 NOV 2022
Team ID	PNT2022TMID17506
Project Name	Project – Personal Expense Tracker Application
Maximum Marks	4 Marks

Technical Architecture:

The Deliverable shall include the architectural diagram as below and the information as per the table1 & table 2

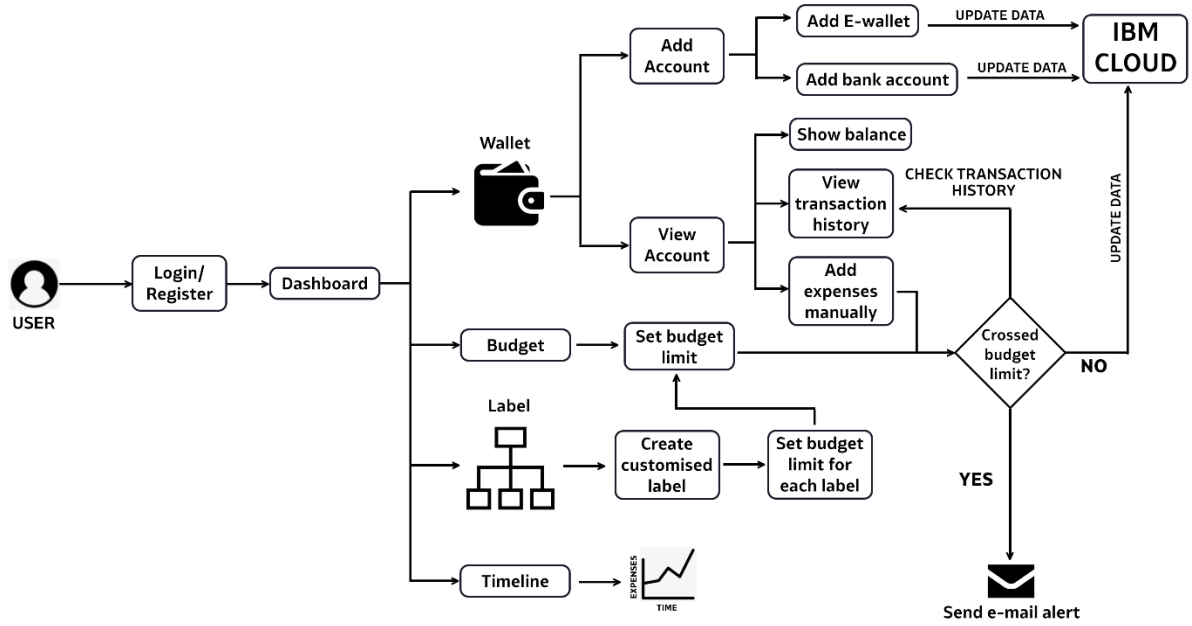

Table-1: Components & Technologies:

S. No.	Component	Description	Technology
1.	User Interface	The users of this application interact with the system with the help of a Chatbot	HTML, CSS, JavaScript
2.	Application Logic - 1	Sign-in feature is available to the new users and Login feature is available to the existing users. The user is then directed to the main dashboard.	Python
3.	Application Logic - 2	The dashboard has the following features: Adding the income and expenses, manage income and manage expense.	IBM Watson STT service
4.	Application Logic – 3	The user has a provision to receive a monthly expense report that where the data is represented in a graphical form. An alert is also generated when the threshold is reached.	IBM Watson Assistant
5.	Database	User information (like name, password, email, gender, age, phone), Income and Expense Information are stored on MySQL Database	MySQL
6.	Cloud Database	The user data is store on the cloud database in a safe and secured manner.	IBM DB2
7.	File Storage	Financial data of the user is stored on the IBM Block Storage.	IBM Block Storage or Other Storage Service or Local Filesystem
8.	External API - 1	Financial news and investment information are provided to the user with the help of APIs.	News API

9.	Infrastructure (Server/Cloud)	Application Deployment on Cloud Server.	Kubernetes

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	Flask Framework is used to implement this application.	Python-Flask
2.	Security Implementations	User Data is stored in a safe and secured manner. This is done using container registry in IBM cloud.	Container Registry, Kubernetes Cluster
3.	Scalable Architecture	This application has lifetime access. This application has high demand especially when the user has higher income as well as expense.	Container Registry, Kubernetes Cluster
4.	Availability	User can access this application at any point of time.	Container Registry, Kubernetes Cluster
5.	Performance	High performance since there will be no network traffic in this application.	Kubernetes Cluster